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REPORT OF THE WORKING GROUP ON ELECTRONIC DATA INTERCHANGE (EDI) ON THE WORK OF ITS TWENTY-SIXTH SESSION
(Vienna, 11-22 October 1993)

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INTRODUCTION

1. At its twenty-fourth session (1991), the Commission agreed that the legal issues of electronic data interchange (EDI) would become increasingly important as the use of EDI developed and that the Commission should undertake work in that field. The Commission agreed that the matter needed detailed consideration by a Working Group. [1/]

2. Pursuant to that decision, the Working Group on International Payments devoted its twenty-fourth session to identifying and discussing the legal issues arising from the increased use of EDI. The report of that session of the Working Group suggested that the review of legal issues arising out of the increased use of EDI had demonstrated that among those issues some would most appropriately be dealt with in the form of statutory provisions (A/CN.9/360, para. 129). As regards the possible preparation of a standard communication agreement for world-wide use in international trade, the Working Group decided that, at least currently, it was not necessary for the Commission to develop a standard communication agreement. However, the Working Group noted that, in line with the flexible approach recommended to the Commission concerning the form of the final instrument, situations might arise where the preparation of model contractual clauses would be regarded as an appropriate way of addressing specific issues (ibid., para. 132). The Working Group reaffirmed the need for close cooperation between all international organizations active in the field. It was agreed that the Commission, in view of its universal membership and general mandate as the core legal body of the United Nations system in the field of international trade law, should play a particularly active role in that respect (ibid., para. 133).

3. At its twenty-fifth session (1992), the Commission considered the report of the Working Group on International Payments on the work of its twenty-fourth session (A/CN.9/360). In line with the suggestions of the Working Group, the Commission agreed that there existed a need to investigate further the legal issues of EDI and to develop practical rules in that field. It was agreed, along the lines suggested by the Working Group, that, while some issues would most appropriately be dealt with in the form of statutory provisions, other issues might more appropriately be dealt with through model contractual clauses. After discussion, the Commission endorsed the recommendation contained in the report of the Working Group (A/CN.9/360, paras. 129-133), reaffirmed the need for active cooperation between all international organizations active in the field, and entrusted the preparation of legal rules on EDI to the Working Group on International Payments, which it renamed the Working Group on Electronic Data Interchange. [2/]

4. At its twenty-sixth session (1993), the Commission had before it the report of the Working Group on Electronic Data Interchange on the work of its twenty-fifth session (A/CN.9/373). The Commission expressed its appreciation for the work accomplished by the Working Group. The Commission noted that the Working Group had started discussing the content of a uniform law on EDI and expressed the hope that the Working Group would proceed expeditiously with the preparation of that text.

5. The view was expressed that, in addition to preparing statutory provisions, the Working Group should engage in the preparation of a model communication agreement for optional use between EDI users. It was explained that most attempts to solve legal problems arising out of the use of EDI currently relied on a contractual approach. That situation created a need for a global model to be used when drafting such contractual arrangements. It was stated in reply that the preparation of a standard communication agreement for universal use had been suggested at the twenty-fourth session of the Commission. The Commission, at that time, had decided that it would be premature to engage immediately in the preparation of a standard communication agreement and that it might be preferable, provisionally, to monitor developments in other organizations, particularly the European Communities and the Economic Commission for Europe. [3/]

6. After discussion, the Commission reaffirmed its earlier decision to postpone its consideration of the matter until the texts of model interchange agreements currently being prepared within those organizations were available for review by the Commission.

7. It was suggested that, in addition to the work currently under way in the Working Group, there existed a need for considering particular issues that arose out of the use of EDI in some specific commercial contexts. The use of EDI in procurement and the replacement of paper bills of lading or other documents of title by EDI messages were given as examples of topics that merited specific consideration. It was also suggested that the Commission should set a time limit for the completion of its current task by the Working Group. The widely prevailing view, however, was that the Working Group should continue to work within its broad mandate established by the Commission. It was agreed that, only after it had completed its preparation of general rules on EDI, the Working Group should discuss additional areas where more detailed rules might be needed. [4/]

8. The Working Group on Electronic Data Interchange, which was composed of all States members of the Commission, held its twenty-sixth session at Vienna, from 11 to 22 October 1993. The session was attended by representatives of the following States members of the Working Group: Austria, Canada, Chile, China, Costa Rica, France, Germany, Hungary, India, Iran (Islamic Republic of), Japan, Mexico, Nigeria, Poland, Russian Federation, Saudi Arabia, Spain, Sudan, Thailand, United Kingdom of Great Britain and Northern Ireland, United States of America and Uruguay.

9. The session was attended by observers from the following States: Armenia, Australia, Belgium, Brazil, Finland, Indonesia, Peru, Philippines, South Africa, Switzerland, Turkey, Ukraine and Yemen.

10. The session was attended by observers from the following international organizations: Economic Commission for Europe (ECE), International Trade Centre UNCTAD/GATT (ITC), United Nations Industrial Development Organization (UNIDO), Asian-African Legal Consultative Committee (AALCC), Bank for International Settlements (BIS), European Community (EC), Hague Conference on Private International Law, Intergovernmental Organization for International Carriage by Rail (OTIF), Cairo Regional Centre for International Commercial Arbitration, European Banking Federation and International Chamber of Commerce (ICC).

11. The Working Group elected the following officers:

Chairman: Mr. José-María Abascal Zamora (Mexico);
Rapporteur: Mr. Abdolhamid Faridi Araghi (Islamic Republic of Iran).

12. The Working Group had before it the following documents: provisional agenda (A/CN.9/WG.IV/WP.56), a note by the Secretariat containing a first draft of uniform rules on the legal aspects of electronic data interchange (EDI) and related means of trade data communication (A/CN.9/WG.IV/WP.57) and a note reproducing the text of draft rules and explanatory comments proposed by the delegation of the United Kingdom of Great Britain and Northern Ireland (A/CN.9/WG.IV/WP.58).

13. The Working Group adopted the following agenda:

1. Election of officers;
2. Adoption of the agenda;
3. Uniform rules on the legal aspects of electronic data interchange (EDI) and related means of trade data communication;
4. Other business;
5. Adoption of the report.

I. DELIBERATIONS AND DECISIONS

14. The Working Group considered the issues discussed in the note by the Secretariat (A/CN.9/WG.IV/WP.57) and the proposal made by the delegation of the United Kingdom of Great Britain and Northern Ireland (A/CN.9/WG.IV/WP.58). The deliberations and conclusions of the Working Group are set forth below in chapter II. The Secretariat was requested to prepare, on the basis of those deliberations and conclusions, a set of revised articles, with possible variants, on the issues discussed.

II. CONSIDERATION OF DRAFT PROVISIONS FOR UNIFORM RULES ON THE LEGAL ASPECTS OF ELECTRONIC DATA INTERCHANGE (EDI) AND RELATED MEANS OF TRADE DATA COMMUNICATION

CHAPTER I. GENERAL PROVISIONS

Article 1. Sphere of application

15. The text of draft article 1 as considered by the Working Group was as follows:

"Sphere of application*

(1) These Rules apply to a trade data message where

Variant A the sender and the recipient of such a message are in different States [at the time when the message is sent].

Variant B (a) the sender and the recipient of such a message have, at the time when the message is [prepared or] sent, their places of business in different States; or

(b) any place where a substantial part of the obligations of the commercial relationship to which the message relates or the place with which the subject-matter of the message is most closely connected is situated outside a State in which either of the parties has its place of business.

Variant C the message affects international trade interests.

(2) These Rules govern only the exchange and storage of trade data messages and the rights and obligations arising from such exchange or storage. Except as otherwise provided in these Rules, they do not apply to the substance of the trade transaction for the purpose of which a trade data message is sent or received.

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* These Rules [do not deal with issues] [do not intend to override any law] [are subject to any law] related to the protection of consumers."

Paragraph (1)

16. The Working Group addressed the question whether the uniform rules should apply only to international cases or whether they should cover both international and domestic cases.

17. According to one view, the application of the uniform rules should not be limited to international cases. In support of that view, it was pointed out that legal certainty to be provided by the uniform rules was necessary for both domestic and international trade. Furthermore, a duality of regimes governing the use of electronic means of recording and communication of data might create a serious obstacle to the use of such means. In addition, it was noted that it would be difficult to establish a clear and generally acceptable criterion for distinguishing domestic cases from international ones.

18. According to another view, the uniform rules should apply only to international cases since their purpose was to facilitate international trade. In this context the Working Group held a discussion of the various variants set out under paragraph (1).

19. In favour of Variants A and B, it was pointed out that they correctly focused on the message rather than on the underlying transaction, as the purpose of the uniform rules was not to unify national laws on trade transactions. However, Variants A and B were criticized for emphasizing the notion of communication, leaving aside the records kept in electronic form but not communicated. In addition, it was noted that Variant A was not workable as it might be difficult for a party to know where the party receiving a message was at the time when the message was sent. Variant B was criticized for focusing on the place of business of the parties, which might be difficult to ascertain.

20. Considerable support was expressed in favour of Variant C, which was regarded as flexible enough to allow subsuming under the uniform rules all messages relating to an international transaction, even if some of those messages would be treated as domestic under Variants A and B. However, Variant C was criticized on the ground that it impliedly referred to the underlying transaction, a reference that was contrary to the principle expressed in paragraph (2).

21. After discussion, the Working Group decided to make the uniform rules applicable in principle to both international and domestic cases, but it also decided to indicate in a footnote a possible test of internationality for use by those States that might desire to limit the applicability of the uniform rules to international cases. It was considered that a provision based on Variant C should be incorporated in such a footnote as a possible criterion for distinguishing international cases from domestic ones.

Paragraph (2)

22. The first sentence of the paragraph was criticized for unduly restricting the scope of the uniform rules. It was suggested that, in addition to the exchange and storage of trade data, other operations such as the creation and processing of data also needed to be taken into account if the uniform rules were to apply to the entire range of electronic commerce procedures. It was also stated that the indication contained in the first sentence that the uniform rules governed the rights and obligations arising from the exchange and storage of trade data messages could be read as contradicting the second sentence of the paragraph. As to the second sentence, it was stated that the draft text was insufficiently clear as to the possible interplay between the uniform rules and other legal rules applicable to trade transactions.

23. The Working Group was generally agreed that the provision should define the sphere of application of the uniform rules and also indicate that the uniform rules were not intended to displace other rules of law applicable to trade transactions, such as the general law of contract. However, it should also be indicated in article 1 that, to the extent necessary for the legal recognition of

information technology, the uniform rules would prevail over other rules of law. For example, the provisions contained in the uniform rules in respect of a functional equivalent of "writing" would normally prevail over possible definitions of "writing" in national legislation.

Footnote: issues of consumer law

24. It was recalled that, in the context of a preliminary discussion of the issues of consumer law by the Working Group at its twenty-fourth session, it had been agreed that such issues should be expressly excluded from the scope of the uniform rules (see A/CN.9/360, para. 30). The view was expressed that the uniform rules should state that they were not applicable to consumer transactions. It was stated that, should the uniform rules apply to consumer transactions but be made subject only to special rules related to the protection of consumers, difficulties might arise in situations where the uniform rules and consumer-protection legislation could apply concurrently. Such difficulties might arise particularly if a determination had to be made as to what constituted consumer-protection legislation. Examples were given of possible conflict between the uniform rules and otherwise applicable rules of law which, although not expressly mentioning consumer protection as their purpose, could be interpreted as having a protective effect on consumers. It was also pointed out that the focus of the uniform rules was on trade transactions and that there might exist situations where the uniform rules, if applied in the context of consumer transactions, would adversely affect the position of consumers. As an example of such a situation, it was stated that draft article 10 created a presumption that, under certain circumstances, the purported sender of a message was bound by the content of a message which it had not actually sent. While such a rule might be conceivable in the context of international credit transfers or other trade transactions, it would in all likelihood be inappropriate for consumer transactions.

25. It was also recalled, however, that the decision reached by the Working Group at its previous session was twofold. While it was generally agreed that the uniform rules should not address special issues relating to the protection of consumers, the prevailing view at that session was that the uniform rules should apply to all messages, including messages to or from consumers, but that it should be made clear that the uniform rules were not intended to override any consumer-protection law. It was pointed out that the uniform rules themselves were likely to improve the position of consumers by increasing legal certainty in their transactions, and that, in addition to that improvement, the uniform rules should open the way for the legislators to provide special protection to consumers (see A/CN.9/373, paras. 29-31).

26. A suggestion was made to adopt a provision along the following lines:

> "These Rules are not intended to apply to consumer transactions but, if used for that purpose, they should not override any law related to consumer protection".

Support was expressed in favour of the suggested provision. It was stated, however, that the effect of such a provision would be to exclude consumer transactions from the scope of the uniform rules, unless the national statute enacting the uniform rules expressly made the uniform rules applicable to consumer transactions. The suggested provision was objected to on the ground that it ran counter to the wish that the uniform rules be readily applicable to consumer transactions.

27. After discussion, the Working Group was agreed that the uniform rules should contain a clear indication of its intent not to take any special issue of consumer protection into consideration. The Secretariat was requested to prepare, for further consideration by the Working Group, variants reflecting the discussion that had taken place.

28. As to whether the issues of consumer law should be dealt with in the body of the uniform rules

or in a footnote, support was expressed for including the relevant provision in the text of the uniform rules. It was realized, however, that the use of such a drafting technique would emphasize the need for a definition of the notion of "consumer". It was generally felt that it would be impractical to attempt to provide a uniform definition of the notion of "consumer". The Working Group reaffirmed the decision made at its previous session that the issue should be dealt with by means of a footnote (see A/CN.9/373, para. 32).

Article 2. Definitions

29. The text of draft article 2 as considered by the Working Group was as follows:

"For the purposes of these Rules:

(a) 'Trade data message' means a set of trade data exchanged [or stored] by means of electronic data interchange (EDI), telegram, telex, telecopy or other [analogous] means of teletransmission [or storage] of [digitalized] data, [to the exclusion of purely oral communication] which [inherently] provides a complete record of the data;

(b) 'Electronic data interchange (EDI)' means the computer-to-computer transmission of business data in a standard format.

(c) 'Sender' means any person who originates a trade data message covered by these Rules [on its own behalf] [or any person on whose behalf a trade data message covered by these Rules purports to have been sent];

(d) 'Recipient' means a person who ultimately receives a trade data message covered by these Rules or who is ultimately intended to receive such a message;

(e) 'Intermediary' means an entity which, as an ordinary part of its business, engages in receiving trade data messages covered by these Rules and is expected to forward such messages to their recipients. [An intermediary may perform such functions as, inter alia, formatting, translating and storing messages.]"

Sub-paragraph (a) (Definition of "Trade data message")

"Message"

30. It was pointed out, at the outset, that the draft definition was predicated on the concept of communication and that it did not take into account computer records that were simply created or stored but were not communicated. In that respect, it was suggested that reference should be made to "trade data document" or "record" and not to "message". A definition along the following lines was suggested:

"'Trade data [record][document]' means trade information exchanged or stored by electronic, optical or other analogous technological means, including but not limited to information generated or stored by means of electronic data interchange (EDI), telegram, telex or telecopy".

31. Support was expressed in favour of the proposal. As regards the suggested use of the word "document", however, it was pointed out that the uniform rules should avoid referring to a concept

that appeared to be intimately linked to the use of paper. Furthermore, it was pointed out that the acceptability of the uniform rules might be enhanced if they clearly departed from the use of terms with a known legal meaning in a paper-based environment. For example, a new definition of a word such as "message", which seemed to have no such established legal meaning, might be more readily acceptable than an extended definition of a term such as "document". It was agreed that whatever term were used, the text should clearly encompass data created or stored but not communicated.

32. The view was expressed that it was unnecessary and extremely difficult to provide a satisfactory definition of concepts such as "trade data message", "record" or "document". It was suggested that, instead of making the applicability of the uniform rules dependent upon such concepts, the uniform rules should address directly the techniques to which they intended to provide legal recognition. The following text was proposed as a replacement for the definition of "trade data message":

> "'Information technology' includes any computer or other technology by means of which information or other matter may be recorded or communicated without being reduced to documentary form".

A corresponding amendment to article 1 was proposed as follows:

> "These Rules apply in respect of the transmission, creation and storage of any message or other record by means of any telecommunication system or any other information technology".

It was pointed out, however, that such a definition might be too broad and that it might make the uniform rules applicable even to telephone conversations.

33. The Working Group was agreed that the need for defining the notion of "trade data message" or any other such concept on which to base the application of the uniform rules would need to be reassessed after the substantive provisions of the uniform rules had been reviewed. In light of the views expressed, the Working Group agreed that the concept of "trade data message" was useful in that it provided an acceptable working assumption. It was decided, however, that the expression "trade data message" should be placed in square brackets, together with such terms as "record","communication" and "document".

"Set of trade data"

34. A concern was expressed that the notion of "trade data", as well as any other reference to "trade", might raise difficulties since certain common law countries did not have a discrete body of commercial law, and it was not easy or usual in such countries to distinguish between the legal rules that applied to "trade" transactions and those that applied more generally. Other examples were given of countries where the notion of "trade" was not commonly used and might raise a question as to its definition. On the other hand, examples were also given of countries where the notion of "trade" might be already in use in national legislation and might be interpreted differently according to the country in which the notion was used. It was stated that previous UNCITRAL legal texts had avoided unnecessary references to such notions as "trade" or "commerce", with the exception of the UNCITRAL Model Law on International Commercial Arbitration, which provided a definition of the term "commercial".

35. A concern was also expressed that qualifying data with the attribute of "trade" would unnecessarily exclude from the scope of application of the uniform rules all other kinds of records and messages, such as those required for public administrative purposes. It was recalled that the Working Group, at its previous session, had agreed that, while the uniform rules should not expressly deal with the situations where a form requirement was prescribed by an administration for reasons of public

policy, the sphere of relationships between EDI users and public authorities should not be excluded from the scope of the uniform rules (A/CN.9/373, para. 48).

"Telegram, telex, telecopy or other analogous means"

36. The Working Group was generally agreed that the aim of the uniform rules should be to encompass the broadest possible range of techniques, whether readily available or still to be developed. A view was expressed that EDI should be distinguished from other methods of communication such as "telegram, telex or telecopy", for which elements of a definition might also need to be stated in the uniform rules. As a possible criterion for distinguishing "telegram, telex or telecopy" from EDI, it was suggested that at least partial reliance on paper-based communications was a common feature of telegram, telex and telecopy. In that connection, it was stated that, while the notion of "analogous means of telecommunication" might be useful in the context of EDI, it might be more difficult to define what might constitute a technique "analogous" to telegram, telex or telecopy.

"Purely oral communications"

37. While agreement was expressed with the proposition that the uniform rules should not apply to purely oral communications, it was noted that there existed mixed communication techniques that might inherently involve conversion of oral communications into electronic records. It was generally felt that such mixed communication techniques should remain subject to the uniform rules. It was also pointed out that purely paper-based communications should be excluded from the application of the uniform rules.

"Complete record of data"

38. The view was expressed that to require a "trade data message" to provide in all circumstances a complete record of the data might be overly burdensome and that it might create a more stringent requirement than currently existed in a paper-based environment. The concern was expressed that the word "complete" might lead to the exclusion from the scope of application of the uniform rules of messages that provided a partial record of the data stored or exchanged. Furthermore, it was pointed out that the reference to the message providing a record of data was repetitious since the notion of "record" was used earlier in the definition. The Working Group agreed to delete the words "complete record of data" on the understanding that the notion of "record" would be defined in the uniform rules.

39. After discussion, the Working Group requested the Secretariat to prepare a new draft of the definition taking into account the above discussion in the Working Group. It was suggested that records, communications and acts beyond records or communications, such as preparation of documents for issue or storage, as well as other related acts, should be covered.

Subparagraph (b) (Definition of "EDI")

"Computer-to-computer"

40. It was pointed out that the terms "computerized" or "electronic" transmission were more appropriate, since "computer-to-computer" might give the impression that intermediaries were excluded. It was suggested that it should be expressly stated in the provision that the expression "computer-to-computer transmission of data" did not exclude communications through an intermediary.

"Business data in a standard format"

41. It was generally felt that the word "business" should be deleted, as otherwise non-business data,

for example administrative data, would be automatically excluded. The reference to a "standard format" was objected to on the grounds that it might raise questions as to whether such standards referred to "recognized standards" and whether the provision covered only publicly available standards or also "proprietary" or private standards.

42. After discussion, the Working Group agreed that the draft definition of "EDI" should be replaced by a definition inspired by the wording adopted in 1990 by the United Nations Economic Commission for Europe in its definition of UN/EDIFACT, which contains a reference to "the electronic interchange of structured data [...] between independent information systems" (Trade/WP.4/171, para. 15).

Subparagraph (c) (Definition of "Sender")

43. The view was expressed that, in view of the decision by the Working Group that the scope of the uniform rules should cover not only information transmitted, but also information created or stored but not transmitted, the definition of the originator of such information as a "sender" might overly focus on communication of information. It was suggested that a term such as "originator" should be preferred to the term "sender". It was recognized, however, that the draft definition of "sender" encompassed the situation where the information was not communicated. While it was agreed that no decision needed to be made at this stage as to the final term to be used, it was generally felt that, should a definition of "sender" or "originator" be retained, it should clearly indicate that persons acting as intermediaries were not covered by such a definition.

44. With respect to the notion of "person" used in the draft definition, a concern was expressed that the mere reference to "person" might not make it sufficiently clear that any legal person or entity on behalf of which a message was created was to be regarded as a sender. In particular, it was stated that messages that were generated automatically by computers without direct human intervention should be clearly regarded as "sent" by the legal entity on behalf of which the computer was operated. As regards such situations where messages were automatically generated, it was also stated that they should be expressly covered not only in the definition of a "sender" but also in the rules on effectiveness of messages set forth in article 10, and that a special provision would be needed to deal with the issue of intent to send a message in such cases. It was further stated that the reference to the person who originated a message might be misinterpreted as covering any clerk who processed the data. A suggestion was made to replace the word "person" by the terms "legally responsible entity". That suggestion was criticized, however, on the grounds that it was not clear what responsibility was being referred to. Another suggestion was that the term "natural or legal person" would sufficiently cover the two categories of persons. It was also noted, however, that the notion of "person" had been used in previous UNCITRAL texts, apparently without giving rise to difficulties.

45. The view was expressed that the distinction drawn in the draft definition between a "person who originates a message" and a "person on whose behalf a message purports to have been sent" was unnecessary. It was suggested that the definition should focus on "the person on whose behalf a message is sent", a formulation which might address both the situation of the sender and that of the purported sender. The view was expressed, however, that this phrase was ambiguous, since it did not clearly cover the case where the actual sender was acting without any authority from the purported sender. Another view was that the notion of a "purported sender" might be useful in the context of article 10 and would need further discussion by the Working Group.

46. After discussion, the Working Group decided that the discussion of a possible definition of "sender" should be resumed at a later stage, once a new draft had been prepared by the Secretariat in light of the above suggestions.

Subparagraph (d) (Definition of "Recipient")

47. The draft provision was criticized on the grounds that it allowed for two different persons to be regarded as the recipient of a single message. It was suggested that the provision should make it clear that the recipient was the person who both received a given message and was the intended addressee of that message. A suggestion was made that this result could be achieved by replacing in the current draft the word "or" by "and". It was also suggested that terms such as "end user" or "addressee" might be more appropriate than the word "recipient".

48. After discussion, the Working Group was agreed that the issue should be left for further consideration until the substantive provisions in the context of which the notion of "recipient" was used had been discussed. It was agreed that, should a definition of "recipient" be finally retained, such a definition should clearly indicate that an intermediary acting in that capacity between a sender and a recipient should not be covered by the definition of "recipient".

Subparagraph (e) (Definition of "Intermediary")

49. The view was expressed that the definition of "intermediary" should not be made dependent upon whether an intermediary performed its functions "as an ordinary part of its business". It was stated that the provision might be misinterpreted as leaving out banks or other entities that did not have as their principal activity the performance of services as an intermediary between users of EDI messages. It was noted, however, that no distinction existed in the current draft as to whether the entity performed services as an intermediary in the context of its principal activity or as a side aspect of its business.

50. In that connection, however, it was generally felt that the draft definition of an intermediary was too restrictive in that it only focused on one of the possible functions of an intermediary, namely that of a courier carrying data between a sender and a recipient. It was agreed that the definition should also take into account other possible functions an intermediary might perform, such as recording, storing, preserving or translating data. It was suggested that, instead of focusing on the business activity of the intermediary, the definition should focus on the message and that it should clearly indicate that the intermediary was an entity that performed certain services with respect to the particular trade data message being considered. It was also suggested that an illustrative list of such services should be provided.

51. A view was expressed that the sender and the recipient of a specific message should be expressly excluded from the definition of an intermediary with respect to that message. In response, it was stated that exclusive definitions of sender, recipient and intermediary might be viewed as departing from the definitions adopted for those terms in the UNCITRAL Model Law on International Credit Transfers. However, it was also stated that, while the Model Law focused on payment orders, i.e., segments of the credit transfer operation, the approach taken in the uniform rules should not rely on any such segmentation. Instead, the uniform rules should focus on the validation of the transaction concluded between the end points of the transmission chain. Such an approach might lead to minimizing, in relative terms, the role of intermediaries that were not parties to that transaction.

52. Another view was that it might prove unnecessary to include any definition of "intermediary", depending on whether it was decided to retain the provisions referring to an intermediary. After discussion, the Working Group decided to take note of the above comments. It was agreed that these issues would be reconsidered once the specific provisions that contained a reference to "intermediary" had been discussed.

Article 3. Interpretation of the Uniform Rules

53. The text of draft article 3 as considered by the Working Group was as follows:

"(1) In the interpretation of these Rules, regard is to be had to their international character and to the need to promote uniformity in their application and the observance of good faith in international trade.

(2) Questions concerning matters governed by these Rules which are not expressly settled in them are to be settled in conformity with the general principles on which these Rules are based or, in the absence of such principles, in conformity with the law applicable by virtue of the rules of private international law."

Paragraph (1)

54. The Working Group noted, at the outset, that article 3, including paragraph (1), was modelled on article 7 of the United Nations Convention on Contracts for the International Sale of Goods (hereinafter referred to as the United Nations Sales Convention). Differing views were expressed as to whether the article should be retained. One view was that, while a provision along those lines might be useful in the context of an international convention, it might be less relevant in the context of a model law that would eventually be enacted as a piece of national legislation. It was stated that paragraph (1) only related to the interpretation of the uniform rules, but it would be the national law enacting the uniform rules, not the uniform rules, which would be interpreted by the national courts, so paragraph (1) would simply not apply. A concern was expressed that, in certain countries, such a provision might even be found to be unconstitutional. It was recalled that a similar provision had been considered by the Working Group on International Payments in the context of the preparation of the UNCITRAL Model Law on International Credit Transfers and that no consensus had been reached as to the inclusion of the provision in that instrument. It was suggested that the text of article 3 should be placed between square brackets for further consideration by the Working Group once a decision had been made as to the final form that would be taken by the uniform rules.

55. The prevailing view was that paragraph (1) should be retained. It was stated that the paragraph provided useful guidance for interpretation of the uniform rules by courts and other national or local authorities. It was stated that in certain countries, more particularly in federal States, it was not uncommon for model rules to provide such guidance, which was aimed at limiting the extent to which a uniform text, once incorporated in local legislation, would be interpreted only by reference to the concepts of local law. Terms such as "commerce" and "trade" were mentioned as examples of notions the interpretation of which would be facilitated by paragraph (1). It was also stated that a provision along the lines of article 3 was being considered for inclusion in the "Principles for International Commercial Contracts" currently being prepared by the International Institute for the Unification of Private Law (UNIDROIT).

Paragraph (2)

56. There was general agreement that the reference to "the law applicable by virtue of the rules of private international law" should be maintained only if the uniform rules were eventually adopted in the form of an international convention. In the case of model legislation, such a reference would become irrelevant since the only law applicable would be that of the State that enacted the model legislation.

57. It was widely felt that a mere reference to "the general principles on which these Rules are

based" was obscure and that the text would need to clarify further what those general principles consisted of. Several suggestions were made in that respect. One suggestion was that the following principles should be listed in paragraph (2): (1) to facilitate electronic commerce among and within nations; (2) to validate transactions entered into by means of new information technologies; (3) to promote and encourage the implementation of new information technologies; (4) to promote the uniformity of law between and within nations; and (5) to support commercial practices. That suggestion was objected to on the ground that, while the suggested principles might constitute acceptable policy statements to be made in the context of a preamble or commentary to the uniform rules, they did not contain legal principles of the nature expected to be referred to under draft paragraph (2). Another suggestion was that paragraph (2) might usefully refer to general principles to be derived from the text of the uniform rules. As to what such principles might be, it was suggested that, for example, a principle of interpretation by analogy might be derived from the listing of techniques in the definition of a "trade data message". The prevailing view, however, was that, in contrast with the law of sales, the general principles of which were commonly known and could be referred to broadly under the United Nations Sales Convention, the international legal practice with respect to EDI was too new for its general principles to be commonly understood.

58. While support was expressed in favour of the deletion of paragraph (2), the Working Group, after discussion, agreed that it might be appropriate for paragraph (2) to provide guidance to courts and other national and local authorities as to the legal principles valued by the uniform rules. It was agreed that further investigation was needed as to how these legal principles should best be expressed.

Article 4. Rules of interpretation

59. The text of draft article 4 as considered by the Working Group was as follows:

"(1) For the purposes of these Rules, statements made by and other conduct of a party are to be interpreted according to that party's intent where the other party knew or could not have been unaware what the intent was.

(2) If the preceding paragraph is not applicable, statements made by and other conduct of a party are to be interpreted according to the understanding that a reasonable person of the same kind as the other party would have had in the same circumstances.

(3) In determining the intent of a party or the understanding a reasonable person would have had, due consideration is to be given to all relevant circumstances of the case including the negotiations, any practices which the parties have established between themselves, usages and any subsequent conduct of the parties."

60. The Working Group noted, at the outset, that article 4 was modelled on article 8 of the United Nations Sales Convention. It was also stated that a provision along the lines of draft article 4 was being considered for inclusion in the "Principles for International Commercial Contracts" currently being prepared within UNIDROIT. The view was expressed that a provision along those lines might provide guidance to courts in respect of such issues as the interpretation of messages containing errors or the intent of parties in situations where messages were generated automatically by a computer. The widely prevailing view, however, was that the issues addressed by draft article 4 should be dealt with directly by users of information technologies in the context of their contractual relationships. It was also pointed out that, in some respects, the text of draft article 4 might be difficult to reconcile with that of draft article 10.

61. After discussion, the Working Group decided to delete draft article 4.

Article 5. Variation by agreement

62. The text of draft article 5 as considered by the Working Group was as follows:

"Except as otherwise provided in these Rules, the rights and obligations of the sender and the recipient of a trade data message arising out of these Rules may be varied by their agreement."

63. There was general support for the principle of party autonomy on which draft article 5 was based. Differing views were expressed, however, as to how the principle should be implemented in the uniform rules. Under one view, which supported the wording of the draft article, the emphasis should be placed on the general principle of party autonomy, which should prevail unless otherwise expressly stated by the uniform rules. It was pointed out by the proponents of that view that, in addition to direct agreements between senders and recipients of trade data messages, agreements concluded with intermediaries and, in particular, contractual system rules established by network operators would need to be accommodated.

64. According to another view, certain difficulties might arise if the principle of party autonomy was broadly stated along the lines of draft article 5. It was stated that the uniform rules might, to some extent, be regarded as a collection of exceptions to well-established rules regarding the form of legal transactions. It was recalled that such well-established rules were normally of a mandatory nature since they generally reflected decisions of public policy. A concern was thus expressed that an unqualified statement regarding the freedom of parties to derogate from the uniform rules might be misinterpreted as allowing parties, through a derogation to the uniform rules, to derogate from mandatory rules adopted for public policy reasons. It was thus suggested that, at least in respect of the provisions contained in chapter II, the uniform rules should be regarded as stating the minimum acceptable form requirement and should, for that reason, be regarded as mandatory, unless they expressly stated otherwise.

65. After discussion, the Working Group decided that the current formulation of article 5 should be placed in square brackets and that each article of the uniform rules should be discussed with a view to determining whether parties should be allowed to derogate from its provisions. It was agreed that, once the review of the remaining articles of the uniform rules had been completed, the Working Group would revert to article 5 and decide whether it was possible to consolidate in a single article dealing with party autonomy all exceptions to the mandatory nature of the uniform rules.

CHAPTER II. FORM REQUIREMENTS

Article 6. Functional equivalent of "writing"

66. The text of draft article 6 as considered by the Working Group was as follows: [2/]

"(1) Variant A "Writing" includes but is not limited to a telegram, telex [, telecopy, EDI message, electronic mail] and any other trade data message which preserves a record of the information contained therein and is capable of being reproduced in [tangible] [human-readable] form [or in any manner that

would be prescribed by applicable law].

Variant B — In legal situations where "writing" is required [explicitly or implicitly], that term shall be taken to mean any entry on any medium able to transmit in toto the data in the entry, which must be capable of being [intentionally recorded or transmitted and] reproduced in human-readable form.

Variant C — Any form of electronic [or analogous] recording of information is deemed to be functionally equivalent to writing, provided the information can be reproduced in visible and intelligible form and provided the information is preserved as a record.

Variant D — (a) For the purpose of any rule of law which expressly or impliedly requires that certain information be recorded or presented in written form, any form of electronic [or analogous] recording of information is deemed to be equivalent to writing, provided the electronic [or analogous] record fulfils the same functions as a paper document.

(b) In determining whether a record satisfies the functions of a writing, due regard shall be had to any agreement between the parties as to the status of that recording.

(2) For the purposes of this article, "record" means a durable symbolic representation of information in objectively perceivable form, or susceptible to reduction to objectively perceivable form.

(3) The provisions of this article do not apply to the following situations: [...]"

Paragraph (1)

Variants A and B

67. The view was expressed that both Variants, and especially Variant A, contained useful elements, which should be considered by the Working Group. For example, it was stated that the list of communication techniques contained in Variant A might be retained. It was generally felt, however, that both Variants A and B attempted to provide an extended definition of the notion of "writing", an approach which was thought to be less suitable than the "functional equivalent" approach taken in Variants C and D. After discussion, the Working Group decided to base its deliberations on Variants C and D.

Variants C and D

68. Considerable support was expressed in favour of Variant C, which was said to establish clearly the characteristics that needed to be fulfilled for a trade data message to be recognized as the functional equivalent of a "writing". Variant D was criticized on the grounds that it contained a general requirement that trade data messages should "fulfil the same functions" as paper documents, which was vague and could lead to legal uncertainty. It was also recalled that, at previous meetings, numerous possible functions of "writing" had been identified. It was stated that a provision along the lines of Variant D might be interpreted as establishing a requirement that, in all instances, trade data messages should fulfil all conceivable functions of a writing. It was generally felt that such an interpretation would result in the imposition of a more stringent requirement in respect of trade data

messages than currently existed in respect of paper documents. It was stated that, when establishing a requirement that certain information had to be presented in written form, legislators generally intended to focus on specific functions of a "writing", for example, its evidentiary function in the context of tax law or its warning function in the context of civil law, and that a need to ascertain the very function a given form requirement was focused on could lead to legal uncertainty.

69. The view was expressed that additional criteria should be included in Variant C for the purpose of establishing a test of equivalence to "writing" to be met by trade data messages. For example, the following criteria were suggested: integrity of the data; security of the recording method against fraud of alteration of the data; durability or "unalterable" nature of the record. It was stated that, in the absence of safeguards to ensure the integrity of the data, an electronic record (in contrast to a paper document) might be altered inadvertently and that, also in the absence of safeguards, deliberate alterations that were difficult to detect might more easily be made to electronic records; and since no original could exist, it was more difficult to establish that the information had not been altered unless such precautions were taken. It was generally felt, however, that a requirement that information should be presented in written form in and of itself could be described as a rather low level of form requirement that should not be confused with more stringent requirements regarding, for example, the presentation of "signed" writings or "original" documents. Taking into account the way in which such issues as integrity of the data and protection against fraud were dealt with in a paper-based environment, it was generally agreed that a fraudulent document would nonetheless be regarded as a "writing".

70. The Working Group agreed that, in setting out criteria for a functional equivalent of paper, the uniform rules should focus on the basic notion mentioned in the current draft of Variant C, i.e., a "record" that was capable of being reproduced and read. It was generally agreed that the existence of such a record constituted the basic feature from which all other characteristics or functions of "writing" were derived.

71. It was generally felt, however, that the structure of Variant C might need to be amended to reflect the purposes for which the requirement of a "writing" was imposed. It was suggested that the opening words of Variant D might be combined with Variant C. It was felt, however, that the text of Variants C and D needed to be further amended to make it clear that the notion of a functional equivalent of "writing" applied not only where an express requirement existed that a document should be presented in written form but also where certain legal consequences would normally flow from the presentation of a written document. Various views were expressed as to how such a result could be obtained. The prevailing view was that the opening words of Variant D, to be combined with Variant C, should read as follows:

> "For the purposes of any rule of law which expressly or impliedly requires that certain information be recorded or presented in written form, or is predicated upon the existence of a writing, ...".

72. Several improvements to the text of Variants C and D were suggested. One suggestion was that a reference to "custom or practice" should be added to the words "For the purpose of any rule of law" at the opening of Variant D. Another suggestion was that the words "is deemed to be functionally equivalent to writing" in the text of Variant C should be replaced by the words "complies with that requirement". Yet another suggestion concerning Variant C was that, in addition to the words "visible and intelligible", the words "legible" and "interpretable" should be included in the draft provision for further discussion by the Working Group at a later session. In that connection, it was suggested that, should the word "legible" be retained, appropriate wording would need to be found to make it clear that the text was intended to address both the situation where a record was "human-readable" and the situation where a record was "machine-readable" only. Yet another suggestion was that functional

equivalents of writing should "not require translation or conversion into another medium to express their meaning" or that functional equivalents should "be capable of such translation or conversion". A further suggestion was that the words "upon demand" should be added at the end of Variant C. It was pointed out, however, that, should the suggested amendment be retained, there might be a need to indicate in the provision whose demand was being considered. It was further suggested that the terms "computer-based information" should be substituted for the words "electronic [or analogous] recording of information", which might cause uncertainty since the notion of "analogous" to electronic recording was unclear.

73. After discussion, the Working Group requested the Secretariat to review the formulation of paragraph (1) so as to take into consideration the suggestions and concerns that had been expressed.

Paragraph (2)

74. While the view was expressed that it would not be necessary to define the term "record" as its meaning was subsumed under the term "trade data message" defined in article 2, the prevailing view was that a definition of "record" was needed. There was strong support in the Working Group for the view that the definition should be included in article 2, so as to make the definition applicable throughout the uniform rules.

75. It was suggested that the word "durable" should be deleted, since the notion of duration was implicit in the term "record", and since express reference to durability raised the question of the length of time a record ought to be kept. The suggestion was made that, if the word "durable" was deleted, the notion of the duration of a record could be expressed by adding the words "at a later time" to the words "susceptible to reduction to objectively perceivable form". Another suggestion was to reconsider the word "symbolic" as it might not adequately cover all information that should be covered, namely textual, numeric and graphic information. Furthermore, the suggestion was made that the word "perceivable" might be unclear as it did not indicate whether information "perceived" should, in addition, be understandable.

76. It was suggested that, in defining the word "record", the Working Group should bear in mind relevant definitions proposed by other international organizations, such as the International Standards Organization. A possible wording offered for consideration was the following: "'Record' is data susceptible of accurate reproduction at a later time".

77. After discussion, the Working Group requested the Secretariat to review the formulation of paragraph (2) so as to take into consideration the suggestions and concerns that had been expressed.

Paragraph (3)

78. It was suggested that the essence of paragraph (3) should be placed in a footnote or in brackets, so as not to encourage States to limit the applicability of article 6. In more general terms, it was also suggested that the uniform rules should be so drafted that they would not operate as an invitation to States to limit their applicability. It was generally felt that, in any case, the uniform rules should contain a uniform formulation as to the manner in which States might limit the applicability of the uniform rules. Documents of title, cheques and documents required by company law were mentioned as possible cases to which a State might wish to refer in a provision along the lines of paragraph (3).

79. The following language was suggested as an alternative to draft paragraph (3): "Nothing in this article prevents a State from enacting further requirements concerning writing, including requirements for the use of a particular medium". It was observed that such a language would be appropriate if the uniform rules were to take the form of a convention, while the current text might be more appropriate

for a model law.

80. After discussion, the Working Group requested the Secretariat to review the formulation of paragraph (3) so as to take into consideration the suggestions and concerns that had been expressed.

Article 7. Functional equivalent of "signature"

81. The text of draft article 7 as considered by the Working Group was as follows: [5]

"(1) Where the signature of a person is required by any rule of law, that requirement shall be deemed to be fulfilled in respect of a trade data message if

(a) a method is used to identify the sender of the message and the mode of identification of the sender is in the circumstances a [commercially] reasonable method of security against unauthorized messages; or

(b) a method for the identification of the sender has been agreed between the sender and the recipient of the message and that method has been used.

(2) In determining whether a method of identification of the sender of a message is [commercially] reasonable, factors to be taken into account include the following: the status and relative economic size of the parties; the nature of their trade activity; the frequency at which commercial transactions take place between the parties; the kind and size of the transaction; the function of signature requirements; the capability of communication systems; compliance with authentication procedures set forth by intermediaries; the range of authentication procedures made available by any intermediary; compliance with trade customs and practice; the existence of insurance coverage mechanisms against unauthorized messages; and any other relevant factor.

(3) The provisions of this article do not apply to the following situations: [...]"

Paragraph (1)

82. The Working Group agreed that the order of subparagraphs (a) and (b) should be reversed so as to indicate more clearly that the method of identification of the sender primarily depended on the agreement of the parties and that the test specified in paragraph (a) applied only in the absence of such an agreement.

83. It was observed that one function of a signature was to identify the sender and another function was to indicate the sender's approval of the content of the message. There was general agreement that both of those functions should be expressed in article 7(1). The view was expressed that the concept of "authentication" should be built into the definition of a functional equivalent of "signature" so as to make it clear that such a functional equivalent also referred to a method by which the maker of the message or record indicated its approval of the information contained therein. It was stated that the concept of "authentication", which was commonly used in the context of EDI, addressed both functions of a signature. It was stated, however, that the word "authentication" might raise difficulties since it might not be understood uniformly. It was generally felt that, should such concepts as "authentication" be used in the uniform rules, a definition would need to be provided. It was also felt that possible relationships between such concepts as "identification", "authentication" and "authorization" might need to be clarified.

84. It was suggested that, in formulating article 7, the Working Group should bear in mind the definition of "signature" contained in article 5(k) of the United Nations Convention on International Bills of Exchange and International Promissory Notes.

85. Various suggestions were made as to the expressions to be used to describe the test for assessing the reasonableness of the method used for identifying the sender and authenticating the content of a given message. According to one view, the expression "commercially reasonable" was suitable since it was readily understandable by business people. It was noted that the same expression was used in article 5 of the UNCITRAL Model Law on International Credit Transfers in an analogous context, and it was stated that the uniform rules should not depart from that precedent. Reservations were expressed, however, as regards the use of the expression "commercially reasonable". It was said that the meaning of the term "reasonable" was unclear and that, in a number of countries, the term was not normally used for purposes of legal interpretation. It was also said that in other countries, while the term "reasonable" might be acceptable since courts were used to interpret it in various contexts, the import of the term "commercial" was unclear, particularly if the reasonableness of a given method was to be assessed by reference to "all the circumstances", which might be expected to be reflective of the business activity of the parties.

86. Further suggestions were made for expressing the test to be set out in subparagraph (a). One suggestion was that the method used for identifying the sender and authenticating the content of a given message should be "appropriate" or "technically appropriate". Another suggestion was to use language along the following lines: "a method of authentication is sufficient if it is as reliable as is appropriate in all the circumstances to the purpose for which a communication was made" and "national law may make provision for determining which kinds of authentication are appropriate for particular purposes". With regard to the second part of that suggestion, a concern was expressed that it would create obstacles to achieving uniformity. Yet another suggestion, which found considerable support, was to require the method to be in conformity with "commercial usage", a concept that was well understood in national legal systems. It was observed, however, that, if parties decided to use a new method of electronic authentication, such a new method might be regarded as reasonable, while no commercial usage might have been developed in relation to that new method.

87. After discussion, the Working Group decided that the next draft of paragraph (1) should reflect the above suggestions as possible variants.

Paragraph (2)

88. Some support was expressed for paragraph (2), which was said to provide useful guidance in assessing the commercial reasonableness of a method of authentication. In commenting on the substance of the paragraph, suggestions were made to reconsider the factors mentioned therein in particular as to whether they indicated relevant criteria for the assessment. It was said that, for example, the status and relative economic size of the parties and the existence of insurance coverage should not be listed in the provision.

89. The prevailing view, however, was that the uniform rules were not the proper place for enumerating those factors, in particular since paragraph (2) left a broad latitude as to the influence of the factors on the conclusion to be reached. It was considered to be more appropriate to leave such factors as an element of the travaux préparatoires for possible consideration by authorities implementing the uniform rules.

Paragraph (3)

90. The Working Group agreed that the substance of article 7(3) should be presented in the same

form as article 6(3) (see above, paras 78-80).

Article 8. Functional equivalent of "original"

91. The text of draft article 8 as considered by the Working Group was as follows: [5]

"(1) Variant A A trade data message sent electronically on any medium shall be considered to be an original with the same evidential value as if it was on paper, provided that the following conditions are met: originality is attributed to the message by the originator of the information; the message is signed and bears the time and date; it is accepted as an original, implicitly or explicitly, through the addressee's acknowledgement of receipt.

Variant B Trade data messages shall not be denied legal recognition solely as a result of the application of a requirement that a document had to be presented in original form.

Variant C Where it is required by any rule of law that a document be presented in original form, that requirement shall be fulfilled by the presentation of a trade data message or in the form of a printout of such a message if

(a) there exists reliable identification of the originator of the message; and

(b) there exists reliable assurance as to the integrity of the content of the message as sent and received; or

(c) the sender and the recipient of the message have expressly agreed that the message should be regarded as equivalent to a paper original document.

(2) The provisions of this article do not apply to the following situations: [...]"

Variant A

92. Variant A was criticized on the grounds that it did not sufficiently focus on the functions performed by original documents in a paper-based environment. It was also stated that the text of Variant A might result in the application to trade data messages of a more stringent requirement than currently existing requirements with respect to paper originals. After discussion, the Working Group decided to delete Variant A.

Variant B

93. Variant B was also found to focus insufficiently on the functions of an original. However, considerable support was given to the approach taken in Variant B, which was found to state a useful principle for enhancing the validity of electronic transactions. It was felt that, in a number of countries, a general provision stating that trade data messages should not be denied legal recognition solely as a result of their electronic form was needed. In that connection, the view was expressed that the notion of "legal recognition" might need to be clarified, in particular by comparison with notions such as "validity", "enforceability", "effectiveness" and "admissibility". The view was also expressed,

however, that a provision along the lines of Variant B might be considered irrelevant if functional equivalents were provided in the uniform rules for form requirements such as the use of "writing", "signature" or "original".

94. After discussion, it was agreed that a provision along the lines of Variant B should be included in a separate article and that consideration should be given to broadening the scope of the provision to state that trade data messages should not be denied legal recognition solely as a result of their electronic form.

Variant C

95. The discussion focused on the purposes for which there might exist requirements that information be presented in the form of original documents. The view was expressed that requirements for originals were established in respect of: (1) admissibility of documents as evidence; (2) evidential weight of information adduced as evidence; (3) other purposes, e.g., in the context of specific rules regarding documents of title and other negotiable instruments. As to the functions performed by originals, it was felt that, while in all instances where an original was required, the notion of integrity of the information contained in the document was essential, the notion of uniqueness of an original also merited consideration in certain contexts, for example the context of negotiable instruments.

96. Based on the above analysis, doubts were expressed as to whether there existed a real need for a provision dealing with the notion of "original" in the uniform rules, at least at the current stage. It was stated that evidentiary issues, whether related to the admissibility or to the evidential weight of documents, should be dealt with under article 9. With respect to the specific issues of documents of title and negotiable instruments, it was stated that specific provisions might need to be prepared in the future but that such provisions were not currently the main focus of the uniform rules.

97. The Working Group agreed to resume its discussion of the issue of "original" at a later stage. It was decided that a provision along the lines of Variant C should be kept in the uniform rules, but that its text should better reflect the range of functions performed by an original. The Working Group also agreed that the order of subparagraphs (a), (b) and (c) should be modified so as to indicate more clearly that the agreement of the parties as to what constituted a functional equivalent of "original" should prevail and that the test specified in subparagraphs (a) and (b) applied only in the absence of such an agreement.

Article 9. Evidential value of trade data messages

98. The text of draft article 9 as considered by the Working Group was as follows:

"(1) Variant A A trade data message shall be admissible as evidence, provided it is reduced to a [tangible] [human readable] form [and provided it is shown that the message has been generated and stored in a reliable manner].

Variant B In any legal proceedings, nothing in the application of the rules of evidence shall apply so as to prevent the admission of a trade data message in evidence on the grounds that it was generated [electronically] by a computer or stored in a computer.

(2) A trade data message shall have [evidential value] [the same evidential value as a written document containing the same data] provided it is shown that the message has been generated and stored in a reliable manner.

(3) In assessing the reliability of the manner in which a trade data message was generated and stored, regard shall be had to the following factors: the method of recording data; the adequacy of measures protecting against alteration of data; the adequacy of the maintenance of data carriers; the method used for authentication of the message."

Title

99. It was agreed that the title of article 9 should read "admissibility and evidential value of trade data messages", since article 9 covered both the admissibility of trade data messages as evidence in legal proceedings and their evidential value.

Paragraph (1)

100. There was general agreement in the Working Group on the principle sought to be stated that trade data messages should not be denied admissibility as evidence in legal proceedings on the sole ground that they were in electronic form. It was stated that the principle was important also for its educational value, even in countries recognizing absolute admissibility of evidence. The Working Group then considered the precise formulation of that principle.

101. Variant A was criticized as being too restrictive, since it established a number of conditions for trade data messages to be admitted as evidence in legal proceedings. It was suggested that Variant A could have the unintended effect of facilitating the exclusion of evidence just because it was in electronic form. Furthermore, it was said that such an approach to admissibility would not only unnecessarily discriminate against trade data messages, but would also be inconsistent with those legal systems in which all evidence was freely admissible. It was added that the uniform rules should not introduce restrictions to admissibility of trade data messages that did not exist for paper documents.

102. The prevailing view was that Variant B contained a preferable expression of the principle that the form in which a trade data message was created, communicated or stored in and of itself should not be determinative of its admissibility as evidence. Several suggestions of a drafting nature were made with respect to Variant B, which the Secretariat was requested to take into consideration in preparing the next draft of article 9. It was suggested that the word "solely" should be added before the words "on the grounds", so as to make it clear that a trade data message could not be dismissed as evidence merely for being in electronic form. A hesitation was expressed that such an addition might raise uncertainty as to whether an objection to a trade data message could be characterized as being made on the grounds that the message was in electronic form and not on other grounds. The suggestion was also made that, after the words "on the grounds that", the following words should be inserted: "that it is a record of a message transmitted by electronic means, or is a record generated by computer or in computerized form". It was stated that the purpose of the first part of the suggested wording was to cover telecopying and the purpose of the second part was to make it clear that a system and not a single computer might be involved.

Paragraphs (2) and (3)

103. The Working Group noted that paragraph (2) was intended to recognize that trade data messages had evidential weight and paragraph (3) was intended to provide guidance as to how that evidential weight was to be assessed. Differing views were expressed as to whether it was necessary or desirable to retain paragraphs (2) and (3). One view was that paragraphs (2) and (3) should be omitted. In line with that view, it was stated that the principle of admissibility was already covered in paragraph (1) and that the assessment of the evidential value of trade data messages should be left to national courts. Furthermore, it was said that, even though the enumeration in paragraph (3) of factors to be taken into

consideration in the assessment of the evidential value of trade data messages was not exhaustive, the misleading impression could be given that those factors were the only or the characteristic factors to be taken into consideration. Another view was that paragraph (2) should be retained as an expression of the principle that trade data messages have evidential value, but that paragraph (3) should be deleted, leaving the assessment of that value to national courts. Yet another view was to introduce a proviso making paragraph (2) "subject to paragraph (3)", so as to make it clear that paragraph (2) was stating the principle while paragraph (3) was providing guidance as to the application of the principle.

104. The prevailing view was that the uniform rules should include provisions containing the essence of the rules set forth in paragraphs (2) and (3), to the effect that trade data messages should not be denied evidential value purely because of their electronic form and that guidance should be given to courts as to the factors to be taken into consideration in assessing such evidential value. It was pointed out that including such guidance would promote the uniform application of the rules.

105. Views were exchanged as to whether the rule in paragraph (2) should refer to a comparability between a trade data message and a written document, as was the case in the present text of paragraph (2), or whether the provision should assign to the trade data message a specific evidential value, to be freely assessed by courts. The view was expressed that one of the main purposes of the uniform rules should be to elevate trade data messages to the same position that written documents enjoyed as regards rules of evidence. It was said that, accordingly, trade data messages should be presumed to have the same evidential value as written documents. The prevailing view, however, was that it was difficult to compare trade data messages with paper documents in the abstract and to assign an automatic, across-the-board equivalence in evidential weight. It was added that there was no merit in assigning to a trade data message the same evidential value as that of a written document which, in a particular case, might not exist. It was also observed that, even if such a written document existed, depending on the circumstances, it could have more or less evidential value than a trade data message, but not necessarily the same value. An alternative wording was proposed, along the following lines: "The weight to be given to a message should be the same regardless of the form in which it was created, stored or communicated". The proposal did not receive support, in particular since it referred to the "same" evidential value without indicating what the word "same" was referring to.

106. The suggestion was made to delete the latter part of paragraph (2), starting with the word "provided", for the same reasons that had led to the rejection of Variant A in paragraph (1), which contained similar wording (see above, para. 101). That suggestion did not meet with support, since it was found that the remaining portion of paragraph (2) would add nothing new to the principle of admissibility already expressed in paragraph (1). In addition, it was observed that the text of paragraph (2) might be clearer if specific wording were found to encompass the entire life-cycle of a trade data message. It was felt that the notion of the life-cycle of a message might generally need further consideration in the elaboration of the uniform rules.

107. The Working Group then turned its attention to a proposal that found general support, to combine paragraphs (2) and (3). The new draft, to be prepared by the Secretariat, would indicate that electronic messages should not be rejected because of their form and should provide guidance as to how the evidential value of a trade data message ought to be assessed. The following wording was suggested:

> "(2) A trade data message shall be given due evidential weight. In assessing the evidential weight of a trade data message generated by computer or stored in computerized form, regard shall be had to the reliability of the manner in which it was generated and stored, and, where relevant, the reliability of the manner in which it was authenticated".

A further suggestion was that, in order to make it abundantly clear that a trade data message should

not be discriminated against for reason of its electronic form, the words "notwithstanding its electronic form" should be added after the word "shall" in the first sentence of the above-suggested new wording of paragraph (2). Doubts were expressed as to the proposed additional language since it would lead to a double mention of electronic form.

108. The Working Group took note of a suggestion that article 9 should also refer, along the following lines, to requirements for an electronic message to be admitted as original: "In any legal proceedings, nothing in the application of the rules of evidence shall apply so as to prevent the admission of a trade data message in evidence solely on the grounds that it is not an original document, if it is the best evidence that the person adducing it could reasonably be expected to obtain".

109. Prior to the close of the discussion on chapter II, the view was expressed that the title of the chapter, "Form requirements", was misleading since the chapter referred to form requirements established regarding written documents and not to form requirements regarding trade data messages. It was suggested that, if it would prove to be impossible to identify and regulate form requirements regarding trade data messages, the title of the chapter would need to be reconsidered.

CHAPTER III. COMMUNICATION OF TRADE DATA MESSAGES

Article 10. [Binding nature] [Effectiveness] of trade data messages

110. The text of draft article 10 as considered by the Working Group was as follows:

"(1) A sender [is bound by] [is deemed to have approved] the content of a trade data message [or an amendment or revocation of a trade data message] if it was issued by the sender [on its own behalf] or by another person who had the authority to bind the sender.

(2) When a trade data message [or an amendment or revocation of a trade data message] is subject to authentication, a purported sender who is not bound under paragraph (1) is nevertheless [bound] [deemed to have approved the content of the message] if

(a) the purported sender and the recipient have agreed to certain authentication procedures;

(b) the authentication is in the circumstances a commercially reasonable method of security against unauthorized trade data messages; and

(c) the recipient complied with the authentication.

(3) The sender and the recipient of a trade data message [are] [are not] permitted to agree that a purported sender is bound under paragraph (2) if the authentication is not commercially reasonable in the circumstances.

(4) A purported sender is, however, not bound under paragraph (2) if it proves that the message as received by the recipient resulted from the actions of a person other than

(a) a present or former employee of the purported sender, or

(b) a person whose relationship with the purported sender enabled that person to gain access to the authentication procedure.

The preceding sentence does not apply if the recipient proves that the trade data message resulted from the actions of a person who had gained access to the authentication procedure through the fault of the purported sender.

(5) A sender who is bound by the content of a trade data message is bound by the terms of the message as received by the recipient. However, the sender is not bound by an erroneous duplicate of, or an error or discrepancy in, a trade data message if

(a) the sender and the recipient have agreed upon a procedure for detecting erroneous duplicates, errors or discrepancies in a message, and

(b) use of the procedure by the recipient revealed or would have revealed the erroneous duplicate, error or discrepancy.

[Paragraph (5) applies to an error or discrepancy in an amendment or a revocation message as it applies to an error or discrepancy in a trade data message]."

Paragraph (1)

111. The Working Group noted that article 10, including paragraph (1), was generally patterned on the provisions of article 5 in the UNCITRAL Model Law on International Credit Transfers. The question was raised, however, whether the rule in paragraph (1) had the same relevance to trade data messages as it did to credit transfers. Differing views were expressed in this regard. One view was that paragraph (1) could be dispensed with because, at most, it was limited to a restatement of applicable basic principles of agency law. It was suggested in this vein that the major substantive contribution of article 10 was rather to be found in paragraph (2), and that including paragraph (1) might suggest distinctions with regard to trade data messages where none actually existed. It was further queried whether the matter addressed in paragraph (1) might not be considered as dealt with in article 7.

112. The prevailing view was that the rule set forth in paragraph (1) was of sufficient importance to trade data messages to merit retention. The Working Group noted that the provision was intended to provide greater certainty and clarity, or even a reminder, in an area that practice had reportedly shown was most often plagued by uncertainty, namely, the question when recipients of trade data messages were entitled to rely on the messages. It was suggested that by addressing this matter the uniform rules would facilitate the use of EDI. A further reason for retaining paragraph (1) that the Working Group regarded as important was the question of internal consistency between the uniform rules and the UNCITRAL Model Law on International Credit Transfers. The concern in that regard was that failure to retain paragraph (1) might erroneously suggest that some other rule than the obvious one in paragraph (1) was intended for the case of trade data messages.

113. As regards the precise formulation of paragraph (1), the Working Group agreed that it would be preferable to adhere, to the extent appropriate, to the language found in the analogous provisions in the UNCITRAL Model Law on International Credit Transfers. At the same time, it was recognized that the situations covered by the two instruments were not conterminous and some adjustment in the terminology to be used might therefore have to be considered. In particular, it was decided that the title of article 10 should speak in terms of "effectiveness" of trade data messages, rather than in terms of their "binding nature", and that paragraph (1) should speak in terms of the sender being "deemed to have approved" the content of a trade data message. This preference for the broader terminology reflected that the context of trade data messages would include documents of non-contractual nature. Subject to these general parameters, the Secretariat was requested to consider a number of drafting

suggestions, including: that paragraph (1) should make express reference to the fact that it was subject to paragraph (5); to replace at the end of paragraph (1) the words "to bind the sender" by the words "to act on behalf of the sender"; and to add at the end the specification "in respect of that message".

Paragraph (2)

114. It was observed that paragraph (2) basically dealt with two kinds of situations in which the purported sender who was not bound under paragraph (1) might be deemed to have approved the content of a trade data message. One was the situation where the parties had an agreement on authentication procedures to be followed between them; and another was the situation where no such agreement existed. Views were exchanged as to how these two kinds of situations should be treated.

115. One view was that, in light of the fact that party autonomy was recognized in article 5, there might be no need to refer to contractual situations in paragraph (2), but that its scope could be limited to cover only non-contractual cases. Another view, broadly supported, was that contractual situations should be clearly distinguished from non-contractual ones and dealt with in separate paragraphs. It was suggested that contractual situations, i.e., cases in which there was an interchange agreement, should be dealt with first, and that the provision should recognize the legal validity of such agreements. This would cover the majority of cases involved.

116. As regards the case where there was no agreement as to the use of authentication procedures, the Working Group engaged in a discussion of how best to treat the question of allocation of the burden of proof which parties would have to bear, with a view to promoting certainty in the application of electronic commerce, but not at the expense of fairness.

117. One view, which received broad support, was that paragraph (2) unnecessarily shifted the burden of proof that would otherwise have to borne by the parties under existing national laws. It was observed that normally the burden of proof lay with the person who would benefit from the fact that the purported sender would be deemed to have approved the message, that is, the recipient. It was added that shifting the burden of proof to the purported sender would make users hesitate about using electronic communications. Furthermore, it was said that paragraph (2) in its present formulation, in particular the word "bound", gave the impression that an irrebuttable presumption existed in favour of the recipient, since it would be impossible for the purported sender to establish the conditions set forth in paragraph (4) in order to rebut the presumption. It was argued that the presumption should be open to challenge by any means and it was agreed that the word "bound" should be deleted.

118. In support of the allocation of the burden of proof outlined in paragraph (2), it was observed that the recipient still had to make out a prima facie case that the message originated from the purported sender, by establishing that the recipient had followed agreed or reasonable authentication methods, which the recipient should be expected to be able to meet since it had control over its authentication procedures. The result of the recipient meeting its burden of proof would be that the purported sender would be deemed to have approved the content of the message. The purported sender then would have the opportunity to establish that the sender was not its agent or a person related to it. It was observed that such an approach did not constitute a departure from prevalent rules on burden of necessary proof and that it promoted use of electronic commerce, since users could rely on messages being binding. It was also said that there was no reason to treat the recipient less favourably than it was treated in the UNCITRAL Model Law on International Credit Transfers, where, even though the recipient was typically a bank, that is a party with ample resources, the burden of proof was on the sender.

119. To encourage use of EDI other points were made with regard to paragraph (2). A concern was expressed that paragraph (2) made reference to authentication without that term having been defined. It was observed that reference to amendment or revocation of a trade data message was not necessary.

In that regard, it was noted that such a reference was appropriate in the context of article 5 of the UNCITRAL Model Law on International Credit Transfers, on which article 10 was modelled, as the Model Law dealt with payment orders and their revocation or amendment, but was unnecessary in the uniform rules, since they dealt only with trade data messages. It was noted that, in line with the Working Group's decision on article 7, the word "commercially" should appear in brackets.

120. In order to address some of the concerns that had been expressed and to express the prevailing views, wording along the following lines was suggested as an alternative to the existing paragraph (2):

> "A purported sender who is not deemed to have approved the message by virtue of paragraph (1) or by virtue of any agreement is deemed to have done so by virtue of this paragraph if:
>
> (a) the message as received by the recipient resulted from the actions of a person whose relationship with the purported sender or with any agent of the purported sender enabled that person to gain access to the authentication procedure of the sender; and
>
> (b) the recipient verified the authentication by a method which was reasonable in all the circumstances".

With regard to the above proposal, the concern was expressed that it appeared to be shifting the burden of proof to the purported sender. In response, it was observed, that the burden of proof lay with the recipient, since it had to prove that the message had been sent by an agent of the purported sender and that it followed reasonable procedures of authentication.

121. The Working Group requested the Secretariat to prepare a new draft of paragraph (2), that would continue to be within square brackets, drawing on the proposed new wording.

Paragraph (3)

122. Differing views were expressed as to whether paragraph (3) should be retained. One view was that it should be deleted as unnecessary. In support of that view, it was pointed out that the provision was not relevant in cases in which no agreement existed between the purported sender and the recipient as to the authentication procedures to be followed. As regards cases in which there was such an agreement, the utility of the provision was questioned since such a provision would, if it were permissive, be redundant of provisions recognizing the legal validity of interchange agreements, as envisaged, for example, in article 5 and in the context of the discussion of draft paragraph (2) (see above, para. 115), or, if it were restrictive, contradict such provisions. As to the restrictive approach, it was said that it might be necessary with regard to less than reasonable methods of authentication in order to protect the weaker party from potential abuses of party autonomy by the party with the stronger bargaining power. In that connection, it was suggested that it might not be appropriate to refer to "unreasonable" methods, since the parties usually considered as reasonable whatever they agreed on. After deliberation, the Working Group decided that a provision along the lines of paragraph (3) should be included in the uniform rules, and that no limitation should be imposed by the uniform rules on the contractual freedom of the parties as regards the determination of authentication methods.

123. As to the exact formulation of the principle of freedom of contracts with regard to authentication methods, there was some difference of opinion. One view was that it should be included in a special provision such as article 10; another view was that it should be expressed in a general provision along the lines of article 5. In support of the latter view, it was argued that a general provision applicable throughout the uniform rules would be more appropriate, since it should be made clear that the courts

could not second-guess any of the parties' agreements. With regard to the word "commercially", in line with the Working Group's decision on article 7 (see above, paras. 85-87), it was decided that it should appear within brackets. The Working Group decided to maintain paragraph (3) in brackets leaving to a later stage the decision as to the exact location or form of the provision in paragraph (3).

124. The Working Group expressed its understanding that the principle of contractual freedom of parties was not intended to override rules of national law preserving in areas such as taxation matters preferential treatment for Government authorities and creditors in bankruptcy.

Paragraph (4)

125. The question was raised as to whether paragraph (4) applied to both contractual and non-contractual situations addressed in paragraph (2). The Working Group noted, however, that the thrust of paragraph (4) would be incorporated in the revised version of paragraph (2) as decided above.

Paragraph (5)

126. The Working Group discussed the question whether a rule along the lines of paragraph (5) was necessary. One view was that paragraph (5) should be deleted. In support of that view, it was observed that paragraph (5) might interfere with applicable contract law in several respects; its language, in particular the word "bound", gave the impression that it dealt with the legal effects of a trade data message and legal responsibility for restitution or expectation damages. Furthermore, it was said that paragraph (5) shifted the burden of proof of erroneous messages to the sender and, in the absence of any agreed procedure, might have the unintended effect of altering an existing duty of care imposed on the recipient under applicable law. In addition, it was said that paragraph (5) was not complete to the extent that it did not cover cases where there was no agreement as to the procedures to be followed in case of errors, or cases where senders had an agreement on procedures for detecting errors with third parties, such as intermediaries, and errors were due to such third parties.

127. The countervailing view, which received broad support, was that paragraph (5) should be maintained. In support of that view, it was pointed out that paragraph (5) was not intended to deal with the legal effect of a trade data message, including questions such as liability for restitution or expectation damages or formation of contract; rather, the proposed paragraph (5) was intended to state the general rule that a message, as regards its contents, was effective as received and to identify the exceptions to that rule.

128. In order to address the concerns expressed, several formulations were suggested: "If a message is to be given effect, it is to be given effect as received by the recipient"; another formulation was "Where a sender is deemed to have approved a message under this article, the content of the message as received shall control"; another suggestion was "The fact that a message is deemed to be effective as that of the sender does not impart legal significance to that message. Whether the message is to be given legal significance is to be determined by other law". With regard to that suggestion, it was observed that it might cause confusion to the extent it suggested that there was always an underlying transaction separate from the communication of the message.

129. It was also suggested that exceptions to the general rule could be covered by language along the following lines: "Where a trade data message contains an error or is an erroneous duplicate of an earlier message, a sender is not deemed to have approved the content of the message by virtue of this article in so far as the message was erroneous, if the recipient was aware of the error or the error would have been apparent, had the recipient used reasonable care or any agreed procedure of verification". It was observed that there was no reference in the proposal to discrepancies, since the notion of an error would include discrepancies.

130. The Working Group requested the Secretariat to redraft paragraph (5), drawing on the suggested language, so as to emphasize that a message should be effective as received and that the recipient should take reasonable steps to ensure that the message had not been altered. It was agreed that the provision should avoid using language that might include the notion of "mistake" or "error" in contract and that might erroneously suggest that the provision dealt with the legal effects of a message.

131. With regard to the wording in square brackets at the end of paragraph (5), the Working Group decided to maintain it in square brackets, since it was recognized that, although the main subject of the uniform rules was the trade data message, there might be a need for correction messages.

132. At the conclusion of the discussion on paragraph (5), the point was raised that the Working Group might wish to consider the security issues arising when there was a change in intermediaries. The Working Group decided that that question might be better dealt with in article 15.

Article 11. Obligations subsequent to transmission

133. The text of draft article 11 as considered by the Working Group was as follows:

"(1) This article applies when:

(a) senders and recipients of trade data messages have agreed on the use of acknowledgements of receipt of messages;

(b) the use of acknowledgements of receipt of messages is requested by an intermediary;

(c) the sender of a trade data message requests an acknowledgement of receipt of the message in the message or otherwise.

(2) Any sender may request an acknowledgement of receipt of the message from the recipient.

(3) Variant A [The recipient of a message requiring an acknowledgement shall not act upon the content of the message until such acknowledgement is sent.] [The recipient of a message requiring an acknowledgement who acts upon the content of the message before such acknowledgement is sent does so at its own risks.]

(4) If the sender does not receive the acknowledgement of receipt within the time limit [agreed upon, requested or within reasonable time], he may, upon giving prompt notification to the recipient to that effect, treat the message as null and void.

Variant B An acknowledgement, when received by the originating party, is [conclusive] [presumptive] evidence that the related message has been received [and, where confirmation of syntax has been required, that the message was syntactically correct]. [Whether a functional acknowledgement has other legal effects is outside the purview of these Rules.]"

Title

134. It was recalled that, at previous sessions, the Working Group had decided that the uniform rules

should impose no obligation to use functional acknowledgements. It was also recalled that the use of such a procedure might, in certain circumstances, be found to be excessively costly and that, in any event, the decision as to the use of functional acknowledgements was a business decision to be made by users of trade data messages. In that connection, the view was expressed that the whole of article 11 should be deleted. The prevailing view, however, was that the article should be retained in view of the earlier decision made by the Working Group that the uniform rules should encourage the use of functional acknowledgements and also in view of the fact that a default rule might be needed for situations where no previous agreement had been entered into by the parties on the subject of acknowledgement. It was generally agreed that the title of article 11 should contain no indication of "obligations", but merely refer to "functional acknowledgement".

Definition of "functional acknowledgement"

135. Various views were expressed regarding the content of the notion of "functional acknowledgement". The view was expressed that the possible link between the notion of "functional acknowledgement" and any procedure of "authentication" might need to be clarified. It was also stated that any provision dealing with issues of functional acknowledgements would need to indicate clearly whether any disclosing of the information contained in the trade data message was implied in the context of the acknowledgement procedure. It was generally agreed that the type of procedure envisaged as "functional acknowledgement" was merely intended to prove the juridical fact that a given message had been received and that such a procedure should imply no disclosure of the content of the message. Rather, "functional acknowledgement" should be regarded as an equivalent of procedures used in the context of registered mail.

136. It was suggested that a definition of the term "functional acknowledgement" should be provided in the uniform rules, possibly in article 2. With respect to the possible content of such a definition, it was generally felt that, in the absence of specific contractual obligations as to the form of an acknowledgement, the recipient of a trade data message who was requested to acknowledge receipt should be allowed to do so by various means, and not necessarily through the issuance of a formal "functional acknowledgement" message. For example, it was stated that the conduct of the recipient of a purchase order who, in response, issued a shipment notice, might be equated to issuance of a functional acknowledgement. It was also suggested that the case where notice of receipt of a message was automatically given by the information system of the recipient should be equated to the issuance of a formal "functional acknowledgement" message. It was generally agreed that, should a definition of "functional acknowledgement" be contained in the uniform rules, it should accommodate the above views and suggestions. As a possible alternative to a formal definition, it was suggested that article 11 might contain indications as to how a functional acknowledgement might be given. The following wording was suggested:

"Acknowledgement of receipt of a trade data message may be provided by:

(1) issuance of a technical message called a 'functional acknowledgement';

(2) automatic confirmation of receipt of the trade data message; or

(3) a response message that would only be generated by receipt of an earlier message."

Paragraph (1)

137. A question was raised as to whether subparagraph (b) encompassed the situation where an acknowledgement was requested by "system rules" that might be established for the operation of a value-added network. It was suggested that express mention should be made in the paragraph that the

use of a functional acknowledgement could result from such "system rules", which were said to be commonly used in practice. A contrary view was that the uniform rules should not allow intermediaries to impose acknowledgement requirements on their own behalf. It was suggested that the words "on behalf of recipients of messages" should be added at the end of subparagraph (b). The prevailing view, however, was that the uniform rules should, to the extent possible, avoid dealing with the contractual relationships between value-added networks and their users.

Paragraph (2)

138. The Working Group agreed to delete paragraph (2) since the idea expressed in that paragraph was already implicit in paragraph (1).

Variant A

Paragraph (3)

139. The first sentence of paragraph (3) in Variant A was criticized on the grounds that it would create an obligation for the recipient of a message not to act until an acknowledgement was sent. In addition, it was stated that the consequences for the failure to fulfil such an obligation were not spelled out. It was generally agreed that the sentence should be deleted.

140. The second sentence of paragraph (3) in Variant A was criticized as being too vague and also on the grounds that it did not specify what consequences might flow from the risk taken by the recipient of a message who acted before an acknowledgement was sent. However, support was also expressed in favour of the draft provision. It was stated that other rules of contract law would determine the consequences to be attributed to the conduct of the recipient and that the draft provision was reflective of the current legal situation in many countries. It was generally felt that, should a provision along the lines of the second sentence of paragraph (3) in Variant A be retained, it should be combined with draft paragraph (4).

Paragraph (4)

141. Support was expressed in favour of the default rule contained in draft paragraph (4) for the reason that, in the absence of a more specific agreement, it provided certainty as to the allocation of risks between the sender and the recipient in situations where a requested acknowledgement was not received by the sender. However, the provision was objected to on the ground that it might affect the law otherwise applicable to contractual relationship. It was also stated that the draft provision overly simplified a potentially complex range of situations where the consequences of the non-issuance of an acknowledgement might vary according to other applicable rules of law. It was generally agreed that the interpretation of a provision along the lines of draft paragraph (4) should not allow the recipient to deprive a message from legal effectiveness, for example a message notifying the termination of a contract, simply by refusing to issue a functional acknowledgement.

142. It was suggested that the wording of draft paragraph (4) was too broad and that the scope of the provision needed to be restricted to situations where the sender had given prior notice to the recipient that a message might be regarded as null and void in the absence of an acknowledgement. The following wording was suggested:

> "If, on or before transmitting a trade data message, or by means of that trade data message, the sender has requested an acknowledgement and stated that the message is to be of no effect until an acknowledgement is received, the recipient may not rely on the message, for any purpose for which it might otherwise seek to rely on it, until an acknowledgement has been

received by the sender.

Where the sender has not requested that the acknowledgement be in a particular form, any request for an acknowledgement may be satisfied by any communication sufficient to indicate to the sender that the message has been received."

It was stated, however, that, should the effect of paragraph (4) be limited to the situation where the sender had given prior notice to the recipient, difficulties might arise, at least in the context of the use of the most advanced EDI techniques, since standard messages contained no field for mentioning such a prior notice.

143. It was suggested that, in the text of paragraph (4), the words "as null and void" should be replaced by the words "as though it had never been received".

Variant B

144. The substance of the provision was found to be generally acceptable. It was decided that, in the preparation of the next draft of article 11, the Secretariat should combine the substance of Variant B with elements of Variant A, so as to take into consideration the suggestions and concerns reflected above.

Article 12. Formation of contracts

145. The text of draft article 12 as considered by the Working Group was as follows:

"(1) A contract concluded by means of trade data messages shall not be denied legal [validity] [recognition] [and parties to that contract may not contest its validity] on the sole ground that the contract was concluded by such means.

(2) A contract concluded by means of trade data messages is formed at the time [and place] where the message constituting acceptance of an offer is received by the recipient."

Paragraph (1)

146. Differing views were expressed as to whether a rule along the lines of paragraph (1) was necessary. One view was that paragraph (1) should be deleted. In support of that view, it was said that the provision might interfere with the applicable law on matters of formation of contract, an area which should be left to the applicable law. In addition, it was observed that such a provision was unnecessary since the subject was already appropriately covered in articles 6 and 7, to the extent that those articles dealt with fulfilment of requirements for a written and signed document. Furthermore, it was argued that a trade data message was merely a means of communication, that contracts were concluded by exchange of offer and acceptance, either or both of which might be made by electronic means, and that the contract existed regardless of the way by which the offer and the acceptance were communicated. It was stated that, provided that offer and acceptance might be made electronically, it would be redundant to refer to the notion of contract. A question was also raised as to the appropriateness of including a provision on formation of contract, while electronic means of communications were used not merely for the conclusion of contracts but also for a variety of other purposes, for example, the implementation of international payments.

147. The prevailing view, however, was that, for a number of reasons, paragraph (1) should be

retained. It was pointed out that paragraph (1) was not intended to interfere with rules of applicable law on the formation of contract, but rather was meant to make it clear that a contract should not be denied legal validity merely because it was concluded by electronic means. Furthermore, it was added that the rule contained in paragraph (1) was not recognized in all legal systems, and that its importance might justify some minimal interference with formation of contracts rules of some other countries which had relevant rules to cover the formation of contracts by electronic means. It was noted that such a rule would, therefore, be responsive to the call from the trading community for increased legal certainty or reliability as to the conclusion of contracts by electronic means. The Working Group noted that articles 6 and 7 only dealt with writing and signature and that they did not provide a rule protecting the effectiveness of transactions as a whole against objections relating to electronic form.

148. As to the exact formulation of paragraph (1), several concerns were expressed. One concern was that it was contradictory to state that a contract was "concluded" and that it "should not be denied legal [validity]". The view was expressed that, if a contract was concluded, it could not be denied legal validity. Another concern was that the present formulation of paragraph (1) might cause confusion as in most languages "conclusion" was identified with "formation" of contract. In order to address those concerns, it was suggested that such terms as "transaction" or "agreement" should be substituted for the word "contract". A concern was also expressed that the use of the expression "on the sole ground" would not provide sufficient clarity as to whether various possible types of objections could be characterized as objections "on the sole ground" of electronic form. It was suggested that the formulation might also have the unintended effect of disturbing other formal requirements that might apply, such as a requirement that a contract should be sealed. Yet another concern was that the negative formulation of paragraph (1) might give the impression that there was some uncertainty as to whether a contract could be concluded electronically. In order to address that concern, it was suggested that paragraph (1) should be formulated in a positive way. Another suggestion was that paragraph (1) should state that a transaction concluded by electronic means should not be denied legal validity (enforceability) on the sole grounds that it was concluded by electronic means or without human intervention. With regard to that proposal, it was observed that an electronic communication could not ultimately be described as lacking human intervention, since there still always had to be an intervention of human will, if not with regard to a particular message, at least to extent that the computers were programmed by human beings.

149. The Secretariat was requested to review the formulation of paragraph (1) so as to take into account the concerns that had been expressed concerning the need to avoid crossing into areas governed by contract law.

Paragraph (2)

150. The Working Group considered the question whether paragraph (2) should be retained, in particular since it appeared to deal with matters central to contract law. In support of retention of paragraph (2), at least to the extent that it dealt with the time, but not with the place, of conclusion of contracts, it was said that it was useful to establish the rule that a contract would be concluded by electronic means at the time of receipt of the message constituting acceptance. It was said that such a rule, which would reflect the particular needs of the EDI setting and the fact that receipt was relatively easy to demonstrate in the EDI context, would be useful in particular for those countries which had a different rule about the time of conclusion of contracts, other than a rule geared to the receipt of the acceptance.

151. The prevailing view, however, was that paragraph (2) should be deleted. It was said that paragraph (2) was unnecessary since both international instruments and domestic law dealt sufficiently with the matter of the time and place of conclusion of contracts. Furthermore, paragraph (2) was objected to on the grounds that, to the extent that it adopted the theory of reception of the acceptance

with regard to the conclusion of contracts, it was overly general and would interfere with applicable rules on formation of contracts. It was generally felt that the uniform rules should confine themselves to establishing a rule as to the time of receipt of trade data messages, a matter dealt with in article 13. However, so as to facilitate a possible further consideration of the matter dealt with in paragraph (2), the Working Group decided to retain paragraph (2) in square brackets.

Article 13. Receipt of trade data messages

152. The text of draft article 13 as considered by the Working Group was as follows:

"A trade data message is received by its recipient

Variant A at the time when it [reaches] [enters] [is made available to and is recorded by] the [computer system] [mailbox] [address] of [or designated by] the recipient.

Variant B (a) at the time when the message is recorded on the computer system directly controlled by the recipient in such a way that it can be retrieved; and

(b) at the place where the recipient has its place of business."

153. A general question was raised as to the necessity of including in the uniform rules a provision along the lines of article 13 since it might be considered that questions of time and place of receipt were already adequately covered by applicable national law. It was suggested in this vein that, if the intent was to clarify rules of law, it might be sufficient to give direction as to where in systems of applicable law answers might be found to questions of time and place of receipt. The view was expressed that the utility of the present version of article 13 was limited since it risked providing overly general and simplified solutions to complex questions requiring more nuanced solutions. While agreeing that the text before it required further development, the Working Group, however, was generally of the view that, due to the new technological and practical characteristics presented by EDI, and the negative effect on the use of EDI of disparity of national laws, it would be advisable to include some type of provision on the time of receipt of a trade data message so as to ensure the level of legal certainty required to facilitate electronic commerce. For the same reasons, some support was also expressed for the inclusion of a rule on the place of receipt.

Time of receipt

154. As regards the point of time when a trade data message is to be considered received, the Working Group had before it two variants that fixed that point at different stages in the life-cycle of a trade data message. It was generally felt that the existing formulation in article 13, irrespective of which variant were taken, needed to be considered further taking into account the peculiar features of exchange of messages in the EDI environment. In particular, the attention of the Working Group was drawn to the possibility that the concept of "reaching" or "entering" the computer system of the recipient, a notion found in Variant A, and the notion of "recording" on the recipient's computer system, as described in Variant B, were insufficient to take into account the various stages and possible difficulties that might occur in the transmission and receipt of trade data messages. Those stages included dispatch, receipt, entry, recording, possibly translation, retrieval by the recipient and "reading" or taking note of the content of the message by the recipient. It was noted that, at various of those stages, the possibility of problems existed and that possibility had to be taken into account in formulating the rule. Such problems included, for example, that the memory of the recipient's computer might be full, thus preventing entry or recording of the message, that the recipient's system

might be inoperative due to power failure, or as simple a problem as a lack of paper in the recipient's telecopy machine. The question was also raised as to whether it might not be necessary to consider fixing different points of time, depending upon the type of technology being used for the transmission of the trade data message. A final observation of a more general character was that it would be useful to make it clear in the chapeau of article 13 that the provision was intended to serve as a default rule and was therefore subject to contractual autonomy.

155. The Working Group then exchanged views as to which particular point in time or stage in the above-described life-cycle of the trade data message should be used to fix the time of receipt. One view, based on Variant A, was that the point of time should be when the message reached the information system of the recipient. It was suggested that such a rule would appropriately reflect the different spheres of control of the sender and recipient and would thus establish an appropriate allocation of risk. Further observations were made directed at the possible need to include in the rule additional precision, in particular to reflect that the risk of the recipient's system not functioning properly should be within the sphere of the recipient. One suggestion in this direction was drawn along the following lines, combining elements of both Variants A and B:

> "A trade data message is received by its recipient at the time when the message entered the information system controlled by the recipient in such a way that it can be retrieved by the recipient, or could be retrieved if the recipient's information system were functioning properly."

156. Another suggested reformulation read as follows:

> "A trade data message is received by its recipient at the time when the message enters the information system controlled [or chosen] by the recipient in such a way that it can be retrieved by the recipient or when the message could have entered the information system and been retrieved if the recipient's information system had been functioning properly."

157. As regards the problem that may arise when a transmission cannot be completed due to the inability of the recipient's system to receive messages, the question was raised whether for such cases the uniform rules should establish a procedure for a minimum number of attempts. It was further questioned whether in such cases, in particular the case where the storage capacity of the recipient's computer was full, the message might be deemed received.

158. It was pointed out that the words "controlled by the recipient" found in the reference in Variant B to the recipient's computer system might be too narrow, since it might very well be that the recipient received messages in a system that was not under its control, but was merely nominated by the recipient. It was suggested in that light that a preferable expression might involve a word such as "designated". It was also suggested that, rather than referring to the recipient's computer system, it might be preferable to use a more general expression such as "facility".

159. Another possible complexity that was highlighted concerned the various ramifications that might be raised by the fact that in the EDI context the "reading" or legibility of a message was not as straightforward a matter as in the traditional paper-based environment. It was generally agreed that the rule should be framed so as to exclude the possibility that the recipient could defeat the transmission of the message by ignoring it or refusing to read it. At the same time, however, it was recognized that there might be circumstances that might require additional steps to be taken after arrival of the message in order to achieve legibility. For example, the message might have to be translated, decoded or deciphered. The concern was expressed that in such a case the time of receipt should not be subject to the whim of or delay caused by the recipient in taking those additional steps. It was suggested that a proper balance taking such circumstances into account might be a twin formulation based on the message reaching the system of the recipient and being accessible or retrievable. The view was

expressed that such a formulation would also take into account the possibility that a message would have to be reformatted, translated or processed in some other way by an intermediary, prior to becoming accessible to the recipient. Another proposal to deal with such cases was to provide that, if the message was not accessible in a manner visible or intelligible to the recipient, the time of receipt would be deemed to be the earliest reasonable point of time that it would be so accessible.

Place of receipt

160. Reservations were expressed as to the necessity and advisability of including a rule on place of receipt, as suggested in subparagraph (b) of Variant B. Those reservations were based on the view that a default rule was unnecessary on the question of place, since it was a matter that could be readily resolved either by contract or in accordance with the applicable law, pursuant to which courts would be likely to focus on a variety of relevant factors rather than being guided solely by the location of the recipient's computer. It was pointed out in this regard that the question of place of receipt was generally governed by national law as well as by international instruments, in particular the United Nations Sales Convention. It was also stressed that the general rule set forth in the draft text could not be assumed to be appropriate for all cases.

161. In response to those reservations and concerns, it was stated that a principal reason for including a rule on place would be to address a circumstance characteristic of electronic commerce that might not necessarily be treated adequately under existing domestic or international law, namely, that very often the information system of the recipient where the message was received or from which the message was retrieved was located in a jurisdiction other than that in which the recipient was located. The rationale behind the provision therefore was to ensure that the location of an information system would not be the dispositive element, but rather that there should be some reasonable connection between the recipient and what was deemed to be the place of receipt, and that that place could be readily ascertained by the sender. It was also noted that the rule on place of receipt, as in the case of the rule on time of receipt, was intended to be a default rule subject to contrary contractual agreement, and that it was meant to cover also the wide range of transactions falling under domestic and international laws governing sales transactions.

162. As to the precise formulation of a rule on place, a question was raised as to the extent to which it would actually be possible to separate, as was apparently attempted in the existing text, the question of time from the question of place. It was pointed out in this regard that the notion of a particular point of time of receipt would necessarily have to be linked to a particular place. It was suggested that this problem might be solved by replacing in the chapeau the words "a trade data message is received" by the words "a trade data message is deemed to be received". As regards the case where the recipient had more than one place of business, it was suggested that the rule might refer to the place with the closest relationship to the transaction concerned. To address the concern that the rule on place should not be overly general, it was suggested that the uniform rules might simply provide that the place of receipt was not necessarily the place where the recipient's computer was located, or where the message was stored or recorded.

163. After deliberation, the Working Group, without finally deciding on the content of article 13, requested the Secretariat to revise the provision, taking into account the comments and observations that had been made, and including a default rule concerning place of receipt.

Article 14. Recording and storage of trade data messages

164. The text of draft article 14 as considered by the Working Group was as follows:

"(1) Variant A This article applies where records are required to be kept by applicable legislation or regulation or by any contractual provisions.

Variant B Subject to any contrary requirement in legislation, where a requirement exists with respect to the retention of records, that requirement [shall] [may] be satisfied if the records are kept in the form of trade data messages provided that the requirements contained in paragraphs (2) and (3) of this article are satisfied.

(2) Trade data messages shall be stored by the sender in the transmitted format and by the recipient in the format in which they are received.

(3) Electronic or computer records of the messages shall be kept readily accessible and shall be capable of being reproduced in a human readable form and, if required, of being printed. Any operational equipment required in this connection shall be retained."

Paragraph (1)

165. While there was no strong feeling in the Working Group for either Variant A or B, Variant A was criticized for appearing to introduce requirements additional to those existing under the applicable law or by virtue of contractual arrangements. Variant B was preferred, since, although it raised a number of questions, it was more descriptive of the operational context. Several suggestions of a drafting nature were made with regard to Variant B. The view was expressed that the expression "subject to any contrary requirement" was inappropriate, since the purpose of the paragraph was precisely to overcome requirements that records be kept in a paper form. Another view was that the expression "subject to any contrary requirement" was unclear, since legislation could be unfriendly to EDI without necessarily being "contrary". Preference was expressed for the word "shall" within square brackets. As to the words "in the form of trade data messages", it was observed that they might give the mistaken impression that trade data messages were a form in which information might be kept, and not the information itself.

Paragraph (2)

166. The concern was expressed that, to the extent paragraph (2) established a duty to store trade data messages, it introduced an unjustified departure from normal practice. Furthermore, it was said that paragraph (2) raised a number of questions. One question was how messages should be stored. Another question was who would have access to the stored messages, i.e., the sender, the recipient, some other third party or the public in general. That question was said to raise issues of confidentiality and data protection, issues of public law that implicated questions of constitutional, administrative and penal law. In that regard, it was said that the uniform rules should confine themselves to private law issues and should make it clear that, as regards matters of private concern, there should be confidentiality. In light of those observations, it was suggested that paragraph (2) should not introduce a duty to store messages, but that the matter should rather be left to the discretion of the parties. It was suggested that that result could be achieved by replacing the word "shall" with the word "may". Another concern was that the present formulation of paragraph (2) was not sufficient, in order to ensure the integrity of the message. In order to address that concern, it was suggested that the words "unaltered and securely" should be added after the word "stored". Yet another concern was that paragraph (2) might not be workable in relation to certain existing telecopy systems.

Paragraph (3)

167. It was suggested that the notion of accessibility and intelligibility of the message should be emphasized in paragraph (3). Differing views were expressed as to the duty to preserve the equipment needed for the retrieval and reproduction of messages. One view was that such a duty should be established, since the maintenance of the equipment was an important condition for the possibility to retrieve and reproduce messages. Another view was that such a duty was too onerous and should not be established.

168. While no decision was taken as to whether the duty envisaged in the last sentence of draft paragraph (3) was one that the uniform rules should establish, it was generally felt that the words "Any operational equipment [...] shall be retained" were inappropriate, since they created the impression that the user of a given equipment was under an obligation to immobilize and physically retain all equipment. It was suggested that the notion of "availability" was preferable to that of "retention" of any operational equipment. The Working Group requested the Secretariat to revise article 14 taking into account the comments and observations that had been made.

[Article 15. Liability]

169. The text of draft article 15 as considered by the Working Group was as follows:

"[(1) Each party shall be liable for damage arising directly from failure to observe any of the provisions of the uniform rules except in the event where the party is prevented from so doing by any circumstances which constitute an impediment beyond that party's control and which could not reasonably be expected to be taken into account at the time when that party engaged in sending and receiving EDI messages or the consequences of which could not be avoided or overcome.

(2) In no event shall either party be liable for special, indirect, or consequential damage.

(3) If a party engages any intermediary to perform such services as the transmission, logging or processing of a message, the party who engages such intermediary shall be liable for damage arising directly from that intermediary's acts, failures or omissions in the provision of the said services.

(4) If a party requires another party to use the services of an intermediary to perform the transmission, logging or processing of an EDI message, the party who requires such use shall be liable to the other party for damage arising directly from that intermediary's acts, failures or omissions in the provision of the said services.]"

Article 15 as a whole

170. The view was expressed that article 15 as a whole should be deleted, since the uniform rules did not seem, at least at this stage, to introduce duties additional to those existing under the applicable law and the contractual arrangements of the parties. Some support was expressed for the retention of article 15. It was suggested that at this stage it would be premature to answer in a definitive manner the question whether the uniform rules would establish new duties for the parties. In that regard, it was said that articles 10, 11 and 14 might introduce such duties, a possibility which it was too early to fully assess.

Paragraph (1)

171. The view was expressed that paragraph (1) of article 15 should be deleted. It was noted that in principle two types of liability would be possible, i.e., no-fault liability and liability for fault. In that regard, it was questioned why a non-fault liability regime of the type in paragraph (1) should be adopted. It was added that a liability regime based on fault was not necessary either, since, as already mentioned, the uniform rules did not create any statutory duties for the parties. As to contractual duties, it was observed that they raised problems relating to the underlying transaction, which should be left to the applicable law and the contractual arrangements of the parties.

172. Some support was expressed for the retention of paragraph (1) of article 15. It was stated that such a rule was necessary so as to avoid application of disparate national laws, a situation that might be an obstacle to legal certainty and, therefore, to the use of EDI. Furthermore, it was observed that a rule on liability might prove to be useful in view of the risk that courts might award damages disproportionate to the amounts involved in trade data messages, a risk that was said to be a serious source of concern and an obstacle to electronic commerce.

Paragraph (2)

173. One concern was that paragraph (2) might cause confusion since it used terms such as "special, indirect, or consequential damage", terms that had little if any meaning in a number of legal systems. Another concern was that paragraph (2), to the extent it appeared to exclude liability even for intentional acts and gross negligence, was departing without reason from what was considered to be the normal rule in most legal systems. In light of the concerns expressed, it was suggested that, even if paragraph (1) of article 15 were retained, paragraph (2) should be deleted.

Paragraph (3)

174. It was pointed out that paragraph (3) raised a number of questions. One question was what was the basis of liability of a party which has engaged an intermediary for damage caused by the intermediary, breach of duty of care or warranty. Another question was to whom was the party which engaged an intermediary liable; it could be inferred that it was the other party, but, it was said that such a rule might be unreasonable in cases where the same intermediary was engaged by both parties or where the decision as to which party would engage an intermediary was fortuitous. Yet another question was whether the obligation of the party which engaged an intermediary was primary or secondary to the liability of the intermediary, that is, whether the other party could claim directly from the party which engaged the intermediary, or only after such a claim had been made, without success, against the intermediary.

Paragraph (4)

175. The view was expressed that paragraph (4) was unnecessary. It was said that the fact that it applied to cases in which one party required the other party to engage an intermediary indicated that a contract had been concluded between the parties, which would normally deal with the question of liability.

176. At the conclusion of the discussion, a concern was expressed that continued retention of article 15, despite the fact that at present the uniform rules did not seem to establish new duties the violation of which could trigger liability, might give the mistaken impression that new duties were being established. Attention was drawn to the risk that this might discourage consideration of the uniform rules. However, the Working Group decided to retain article 15, in square brackets, so as to facilitate consideration at a later stage of the matter whether a provision along the lines of article 15 was finally

justified. The Secretariat was requested to prepare a revised draft of article 15, taking into account the various suggestions and concerns that had been expressed.

III. FURTHER ISSUES TO BE CONSIDERED

177. The Working Group discussed whether further issues should be dealt with in the uniform rules. With respect to a suggestion contained in the note by the Secretariat (A/CN.9/WG.IV/WP.57) that the question of liability of third-party service providers might need to be discussed, it was generally felt that, while the question might need to be taken up at a later stage in the light of future developments of EDI practice, it would be premature at this stage. With respect to the question of documents of title and securities, the Working Group noted that the Commission, at its twenty-sixth session, had considered a suggestion that there existed a need for rules dealing with such specific issues. It was generally felt that only after completion of the uniform rules currently being prepared, which were intended to be a discrete set of rules, would the Working Group be in a position to undertake work in specific areas where more detailed rules might be needed. With respect to the possible interplay of the uniform rules with legal rules on personal data protection that might exist in certain countries, it was generally felt that, where such legal rules existed, they were intended for a purpose of privacy protection that went far beyond the purview of any instrument that might be prepared by the Commission. It was agreed, however, that issues of personal data protection might need to be taken into consideration in the preparation of the uniform rules.

NOTES

1/ Official Records of the General Assembly, Forty-sixth Session, Supplement No. 17 (A/46/17), paras. 314-317.

2/ Ibid., Forty-seventh Session, Supplement No. 17 (A/47/17), paras. 140-148.

3/ Ibid., Forty-sixth Session, Supplement No. 17 (A/46/17), para. 316.

4/ Ibid., Forty-eighth Session, Supplement No. 17 (A/48/17), paras. 265-268.

5/ While the discussion of draft articles 6, 7 and 8 was based on the text of a note by the Secretariat (A/CN.9/WG.IV/WP.57), the Working Group also took into consideration the text of a proposal by the delegation of the United Kingdom of Great Britain and Northern Ireland (see A/CN.9/WG.IV/WP.58), which read as follows:

"A. Writing

(1) Where, by virtue of any enactment or rule of law, certain legal consequences of any matter are determined by reference to whether information is recorded in writing or in legible form, it shall be sufficient for the purpose of that enactment or rule if the information is recorded in such a manner as to be capable of being produced in the form of [textual or other] visual images which:

(i) precisely correspond to that information; and
(ii) are no less satisfactory for any relevant purpose that would be served if the information had been recorded in writing or in legible form.

(2) Where it is necessary for the purpose of any enactment or rule of law or any question of evidence that a record be produced in writing or in legible form, it shall be sufficient for that purpose if a record of information recorded in the manner described in paragraph (1) above is produced in the form of [textual or other] visual images which satisfy sub-paragraphs (i) and (ii) of that paragraph."

B. Authentication

(1) This article applies where the signature of any person is of significance for the purpose of any enactment or rule of law, any question of evidence, any contract or any other matter.

(2) In this article, an "authentication" means any device which purports to indicate by whom a communication or record was made or issued and that person's approval of the information contained therein.

(3) An authentication which purports to have been applied by or on behalf of the person whose signature is relevant shall be sufficient for the purpose in question in place of signature if:

(i) it is evidence that it was applied by that person or its agent (whether or not authorized for the purpose); and
(ii) as such evidence, is no less reliable than signature, or (except where signature would otherwise be required by law) is as reliable as was appropriate in all the circumstances to the purpose for which the record or communication was made.

(4) Insofar as it applies in relation to any enactment or rule of law, paragraphs (1) to (3) above may not be excluded or modified by any legally enforceable undertaking or agreement.

C. Transactions effected by signed writing

(1) This article applies where, by virtue of any enactment or rule of law, the legal effect of any transaction is determined by reference to whether it is effected by writing and signature.

(2) A record, which by virtue of articles A and B above is to be treated as sufficient for the purpose of any condition as to writing and signature which applies to a transaction referred to in paragraph (1) above, shall be taken to confer on the transaction such legal effect as would be conferred by writing and signature only as from the time when the record is in a form which complies with sub-paragraphs (i) and (ii) of Articles A(1) and B(3).

D. Requirement of an original

(1) This article applies where:

(i) it is necessary for the purpose of evidence or of any enactment or rule of law that an original record be produced; and
(ii) information has been recorded other than in the form of visual images.

(2) In any legal proceedings it shall be sufficient for the purpose of the application of any rule of evidence referred to in paragraph (1)(i) above that the record sought to be adduced in evidence is the best evidence that the person adducing it could reasonably be expected to obtain; but nothing in this paragraph shall affect any question as to the weight to be accorded to that evidence.

(3) Subject to paragraph (2) above, it shall be sufficient for any purpose referred to in paragraph (1)(i) above if a record is produced in a form:

(i) the information in which precisely corresponds to the information originally recorded; and
(ii) which is no less satisfactory for any relevant purpose that would be served by the production of an original record.

E. Information corresponding to the original recording

(1) For the purpose of Articles A and D above, a record shall be taken to be in a form the images or information in which correspond precisely to the information as it was recorded if, notwithstanding any alteration in the form of the record, the content of the information originally recorded has been precisely replicated.

(2) For the purpose of paragraph (1) above, unless the contrary is shown, the content of the information shall be presumed to have been precisely replicated if the ultimate record derives from the original recording by an unbroken chain or reproduction, and at all material times the following remained unaltered:

(i) the original recording;
(ii) the ultimate record in question; and
(iii) any intermediate reproduction of the original recording, from which the ultimate record was directly or indirectly reproduced.

[F. Exclusions

Articles A to E above do not apply for the purpose of any enactment or rule of law or any question of evidence insofar as those articles relate to a negotiable instrument or a share certificate.]

G. Burden of proof

Where an issue arises as to whether any condition in Articles A, B, D or E above is satisfied, it is (subject to paragraph (2) of Article E) for the person who claims that the paragraph is satisfied to show that it is."